



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

1595 Wynkoop Street
Denver, CO 80202-1129
Phone (800) 227-8917
www.epa.gov/region08

AUG 08 2016

Ref: 8EPR-N

Barbara Sharrow
Acting Southwest District Manager
Bureau of Land Management
Uncompahgre Field Office
2465 South Townsend Avenue
Montrose, Colorado 81401

Re: Final Environmental Impact Statement for the Bull Mountain Unit Master Development Plan
CEQ# 20160151

Dear Ms. Sharrow:

The U.S. Environmental Protection Agency Region 8 has reviewed the Bureau of Land Management's Final Environmental Impact Statement for the Bull Mountain Unit Master Development Plan (MDP). Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act and Section 309 of the Clean Air Act.

Project Description

The Bull Mountain Unit MDP describes the exploration and development of up to 146 natural gas wells, 4 water disposal wells, and associated infrastructure on federal and private mineral leases within a federally unitized area known as the Bull Mountain Unit in Gunnison County, Colorado. Federal unitization allows for placement of wells within the Unit in a logical fashion in order to minimize road development, pipelines and other surface impacts. Effectively eliminating internal property boundaries within the Unit allows for the most efficient and cost effective means of developing the underlying oil and gas resources. The BLM will decide whether to approve the Bull Mountain Unit MDP as proposed, approve the MDP with modification and mitigation, or reject the MDP. If approved, additional applications and approvals, including additional NEPA analysis, will be required in order for the Unit operator to begin construction, except for construction related to well pad 12-89-7-1, for which the Application for Permit to Drill (APD) may be approved in BLM's decision on this EIS. Decisions by BLM on further applications would be tiered to the analysis in the Final EIS.

The alternatives evaluated in the Final EIS include: Alternative A (No Action), Alternative B (Proposed Action), Alternative C (Modified Action) and Alternative D (BLM's Preferred Alternative).

Comments and Recommendations

1. Air Resources

Design Features – Protection of AQRVs at Class I Areas

Although this development is in a rural area, protection of air quality is important due to the number of

residences in the project area and due to the proximity of the Maroon Bells – Snowmass Wilderness Class I Area. We support the BLM’s requirement to limit the project’s NO_x emissions with the intent of protecting Class I Air Quality Related Values (AQRVs). This design feature currently limits Unit-wide, production-phase NO_x emissions to 143 tons per year (TPY) to reduce far-field nitrogen deposition impacts to an insignificant level. In order to assure protection of this and other AQRVs, we encourage BLM to evaluate whether this NO_x budget should include other actions authorized by BLM. For example, since the publication of the Draft EIS, the BLM has taken action on an Environmental Assessment (EA) that analyzed the addition of 25 wells on 5 well pads adjacent to the Bull Mountain Unit (EA number: BLM COS-0500-2015-0029-EA). Due to the proximity of these other activities to this project, it is likely that the additional emissions would affect AQRVs in the same manner as, and additively with, Bull Mountain Unit emissions.

Therefore, we recommend considering whether the applicability of the 143 TPY NO_x budget should be expanded to cover emissions from development of both the EIS and EA projects. We also recommend the NO_x limit apply to construction-, development- and production-phase emissions since impacts to Class I areas would be expected to occur regardless of project phase. Finally, we recommend consulting with the Federal Land Managers to ensure that the design feature is sufficient to meet their management direction.

Design Features – 1-hour NO₂

We support the BLM’s decision to place conditions of approval (COAs) on permits and the intended goal of those COAs to maintain air quality near each well pad below the 1-hour NO₂ National Ambient Air Quality Standard (NAAQS). In addition to reducing AQRVs and local NO_x concerns, the NO_x limit of 5 TPY at each well pad during the production phase would have co-benefits, including the reduction of ozone precursors and GHG emissions. Mitigation can best be ensured by limiting NO_x according to the form of the 1-hour NO₂ NAAQS; therefore, we continue to recommend that the requirement utilize the lb/hr NO_x emissions rate or an emissions rate with a shorter timeframe than an hour (such as the modeled gram per second emissions rate), rather than a tons per year limit. This would better align with the BLM’s goal of maintaining air quality below the 1-hour NO₂ NAAQS.

Similarly, for drilling, fracturing and completion, the requirement to operate Tier 2 engines and the use of combined horsepower to trigger the need for additional analysis may not align with the goal of maintaining air quality below the 1-hour NO₂ NAAQS. The emissions presented for development activities did not appear to be able to achieve the 1 gram per second NO_x emissions rate needed to attain the 1-hour NO₂ NAAQS. We recommend that the COA be clear that the overriding requirement is the combined hourly emissions rate.

For construction, there is not currently a mitigation measure and corresponding COA to maintain air quality below the 1-hour NO₂ NAAQS. Protecting air quality is important during all phases of development. EPA noted in our comments on the Draft EIS that the modeled scenario for construction could achieve the target 1 gram per second NO_x emissions rate. The emission inventory utilized in that model scenario assumed that Tier 3 engines would be used for construction. We therefore recommend that use of Tier 3 engines be required, or alternatively, a lb/hr or gram per second NO_x emissions rate be required. By identifying a consistent goal for each phase of construction, the NAAQS will be attained throughout development of this project.

2. *Water Resources*

Setbacks to Protect Water Resources

In our comments on the Draft EIS, the EPA expressed support for requiring 300-foot setbacks from waterways and riparian areas in the MDP, and recommended that this be included in the Final EIS and Record of Decision (ROD) as a design feature. The Final EIS includes a 300-foot setback requirement for designated cutthroat trout streams only. The EIS also states that lineage Greenback cutthroat trout have not been identified in the Bull Mountain Unit, and contains conflicting information on the presence of Colorado River cutthroat trout (pp. 3-91 and N-81). We understand that these inconsistencies will be reconciled in the ROD to clarify that Colorado River cutthroat trout do exist within the Unit and that the setback will apply to Greenback lineage cutthroat trout streams. We also recommend that the designated cutthroat trout streams be identified in the ROD in order to clarify the extent of the setback. A smaller 150-foot setback is stated in the Final EIS to apply to natural waterbodies “in other watersheds” (pp. 2-48 and C-9), and we understand that this will be changed in the ROD to apply to “other areas.” The North Fork Gunnison River, which is downstream of the Bull Mountain Unit, is impaired by selenium, and as disclosed in the Final EIS, the Unit contains soils high in selenium. Since surface disturbance leads to sedimentation and all streams in the Bull Mountain Unit drain to the impaired North Fork Gunnison River, we recommend that 300-foot setbacks be required for all waterways and riparian areas except where significant surface impacts and sedimentation would occur as a result of the larger setback, and that this requirement be included in the ROD as a design feature, mitigation measure or COA.

3. *Climate Change*

The EPA recognizes that the climate change analysis in the Final EIS has been improved by including information on the affected environment from the more recent 2013 Assessment Report of the Intergovernmental Panel on Climate Change as well as the U.S. Global Change Research Program’s National Climate Assessment. The FEIS still does not analyze how climate change would be expected to exacerbate the adverse environmental effects associated with the Bull Mountain Unit MDP. For example, the impacts of water use on stream and fish health will interact with the effects of increased temperatures on stream flows.

We note the statement in the Final EIS that GHG emissions from refining and consumption of oil and gas are not an indirect effect of oil and gas production, but that they may be accounted for in the cumulative effects analysis. The Final EIS does not estimate the GHG emissions that will result from refining and consumption in the cumulative effects section. Given that refining and combustion are reasonably foreseeable activities associated with oil and gas exploration and development, the emissions associated with refining and combustion of the oil and gas should be analyzed as indirect effects in the EIS. Further, the Council on Environmental Quality’s (CEQ) *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* clarifies that indirect effects of proposed actions involving fossil fuel extraction includes GHG emissions associated with refining and combustion of the fossil fuel being extracted¹.

¹ See Council on Environmental Quality (CEQ) *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*, footnote 42 p. 16 (August 1, 2016).

Finally, we encourage the BLM to commit to implementation of additional measures beyond current regulatory requirements related to climate change. Specifically, we recommend that the ROD discuss measures that would further reduce or eliminate project-related GHG emissions and/or increase resiliency to anticipated climate change, such as offsetting of GHG emissions by implementing one or more environmental projects, including habitat restoration, that would increase resiliency and reduce net emissions; electrification of field equipment, with consideration for renewable energy sources; committing to development in a manner that would allow for the capture or beneficial use of emissions during well completion; and educating workers about the impacts of climate change and how they can help reduce GHG emissions (e.g., by avoiding excessive idling of trucks and equipment.)

We appreciate the opportunity to review this project. If you have any questions about our recommendations, please contact me at 303-312-6704, or Melissa McCoy of my staff at 303-312-6155 or mccoy.melissa@epa.gov.

Sincerely,



Philip S. Strobel
Director, NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation

